

GGCACGAGTG	TGCCTAACAG	AGAAAGAGAG	ACCGATAGCC	TCCTCATTC	CTATGGCGAT	60	
CCGATCGCCA	GCTTCGCTGC	TGTTATTCG	GTTCCTGATG	CTTGCCTCA	CAGGAAGACT	120	
5	GCAGGCCGGG	CGCAGCTCGT	GCATTGGCGT	CTACTGGGGG	CAAAACACAG	ACGAGGGAAAG	180
	CTTAGCAGAT	GCTTCGCTCA	CAGGCAACTA	CGAATCGTG	AAACATCGCCA	CCCTTTCAA	240
10	GTTGGCATG	GGCCRAACTC	CANAGATCAA	CCTCGCCGGG	CACTGTGACC	CTCGGAACAA	300
	CGGCTGCGCG	CGCTTAAGCA	GAGAAATCCA	GTCTGCCAG	GAGCGTGGAG	TCACGGTGTAT	360
	GCTCTCCATC	GGAGGTGGCG	GGTCTTATGG	CCTGAGTTCC	ACCGAAGACG	CCAAGGACGT	420
15	GGCGTCATAC	CTCTGGCACA	GTTTCTTGGG	TGGTCTGCT	GCTCGCTACT	CTCGACCCCT	480
	CGGGGATGCG	GTTCTGGATG	GCATANACTT	CAACATCNCC	GGAGGGAGCA	CAGAACACTA	540
20	TGATGAACTT	GGCGCTTCCC	TCAAGGGCTA	CNACGAACAG	GAAGCCGGAA	CGAAAAAANT	600
	TTTACTTGAA	TGCTGCTCCC	NCANTGTCCT	TTCCCGGATT	ACTGGCTTGG	CACCCACTCA	660
	NAAAANATCT	CTTCNNACTT	CCNTGTGGGT	TGCAANTTCT	CCAANAAACCC	TTCCCTTGCNN	720
25	TTTCTCCCCA	AAACCTATCC	ATCTTGCAT	TCCTTCACA	AATTGGGTCTN	TNTCCNTCCC	780
	NGCCCCNAAA	ACTTTTCCC	TNGGGCTCC				809

(2) INFORMATION FOR SEQ ID NO: 48:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 809 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: cDNA

(vii) IMMEDIATE SOURCE:
 (B) CLONE: U-D86

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

GGCACGAGCC	ACAAGCTTGC	CTTGGTTGT	GCCTAACAGA	GAGAGAGAGA	GAGACAGACC	60	
GATAGCCTCC	TCATTCACTA	TGGCGATCCG	ATCGCCAGCT	TCGCTGCTGT	TATTTGGCGTT	120	
50	TCTGATGCTT	GGCCTCACAG	GAAGACTGCA	GGCCCGGCGC	AACTCATGCA	TTGGCGTCTA	180
	CTGGGGACAA	AGACAGACG	AGGGAGCTT	AGCAGATGCT	TGTGCCACAG	GCAACTACGA	240
55	ATACGTGAAC	ATGCCACCC	TTTCAAGTT	TGGCATGGCC	CAAACCTCCAG	AGATCAACCT	300
	CGCTAGCCAC	TGTGACCTCT	AGAACACAGC	CTGCGCGCGC	TAAAGCAGCG	AAATCCAGTC	360
60	CTGCGCAGGAG	CCTGGAGTCA	AGGTGATGCT	CTCCATCGGA	GGTGGGGGT	CTTATGGCCT	420
	GAGTCCACCC	GAAGACGCCA	AGGACGTGCC	GTCATACCTC	TGGCACAGTT	TCTTGGGTGG	480
65	TTCTGCTGCT	CGCTACTCTC	GACCCCTCGG	GGATGCGGTT	CTGGATGGCA	AAACTTCAA	540
	CATCNCCGGA	GGGGAGCACAG	AAACATATGA	TGAACATTGCC	GCTTCCCTCA	AGGGCTACAA	600
70	CGANCAGGAA	GGCGGAACGA	AAAAAGTTCA	CTTGAATGCT	GCTCCCCANT	GTCTTCCCG	660
	GATTACTGGC	TTGGCAACGC	NCTCCAAAAC	AAACTCTTC	CACTTCTGTT	GGGTGCACTC	720
	CTCCACAAAC	CTTCNTGCA	TCTCCCCAAA	CCTATCAATC	TTGCNAATG	CGTCAACAA	780

TTNGGGTCTT TTGATCCCCG CCCAAA

809

(2) INFORMATION FOR SEQ ID NO: 49:

5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 785 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 10 (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: cDNA

15 (vii) IMMEDIATE SOURCE:

(B) CLONE: U-D90

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

GGCACGAGGA GAGACCGATA GGCCTCTCAT TCACATATGCC GATCCGATCG CCAGCTTCGC	60
TGCTGTTATT TGCGTTTCTG ATGCTTGGCC TCACAGGAAG ACTGCAGGCC GGGCGCAGCT	120
CGTGCATGG CGTCTACTGG GGCAAAACA CAGACGAGGG AACCTTAGCA GATGCTTGTG	180
CCACAGGCAA CTACGAATAC GTGAACATCG CCACCCCTTT CAAGTTGGC ATGGGCCAAA	240
CTCCAGAGAT CAACCTCGCC GGCCACTGTG ACCCTCGAA CAACGGCTGC GCGCGTTAA	300
GCAGAGAAAT CCAGCTCTGC CAGGAGCGTG GAGTCACGGT GATGCTCTCC ATCGGAGGTG	360
CGGGGTCTTA TGGCTCTGAGT TCCACCGAAG AGCGGAAAGGA CGTGGGGTCA TACCTCTGGC	420
ACAGTTCTT GGGTGGTTCT GTCTGTCGCT ACTCTCGACC CCTCGGGGAT GCGGTTCTGG	480
ATGGCATANA CTTCACACATC GCCGGAGGGA GCACAGAAACA CTATGATGAA CTTGGCCGCTT	540
40 TCCTCAAGGC CTACAAACGAG CAGGAAGCCG GAACGAAAAA AGTTTACTTG AATTGCTGCT	600
CCGCANTATC CTTTCCNGAT TACTGGCTTG GCAACNCNTT CCAAAAAANA TCTCTTCCAC	660
45 TTCCCTGTTGG GTGCACTTCTC TCCAAANAACC CNTTCNTGCC ATTCTCCCC AAAACGCTTT	720
CCATCTTGC AAATGCCCTT CAACAATTGG GGTCTTGTTC CNNCCCTGCC CCAAAAACTG	780
TTCCT	785

50 (2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 813 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 55 (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: cDNA

60 (vii) IMMEDIATE SOURCE:
 (B) CLONE: U-D93

65 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

GGCACGAGCG ATAGCCTCCT CATTCACTAT GGCGATCCGA TCGCCAACTT CGCTGCTGTT	60
70 ATTTGCGTTC CTGATGCTTG CGCTCACGGG AAGACTGCAG GCGCGGCCA GCTCATGCAT	120

TGGCGTCTAC TGGGGACAAA ACACCGACGA GGGAAAGCTTA GCAGATGCTT GTGCCACAGG 180
 CAACTACGAT TACGTGAACA TCGCCACCC TTTCAGTTT GGCATGGCC AAACCTCCAGA 240

5 GATCAACCTC GCCGGCCACT GTGACCTCG GAAACAACGGC TGCGCGCGT TGAGCAGCGA 300
 AATCCAGTCC TGCCAGGAGC GTGGCGTCAA GTGTGATGCTC TCCATCGGAG GTGGCGGGTC 360

10 TTATGGCCTG AGTCCACCG AAGACGCCAA GGGAAAGTAGC GTCTACCTC TGGCACAGTT 420
 TCTTGGTGG TTCTGCTGCT CGCTACTCGA GACCCCTCGG GGATGCGGAA CTGGATGGCA 480

TANACTTCAA CATCGCCGGA GGGAAAGACG AACACTATGA TGAACATTGCC GCTTTCCCTCA 540

15 AGGCCTACAA CGANCAGGAA GCGGAAACNA AAAAAGTTCA CTTGAAATTGC TGCTCCGAG 600
 TGTCCTTTC CGGATTACTG GCTTGGCAAC GCACTCAGAA CANATCTCTT CNACTTCTG 660

20 TGCGTGCAT TTCTCCACAA ANCCTTCNT GCGATTTCCTC CCARAAAGCT ATCNATCTG 720
 CAAATGCGTT CNACRAATTGG GTCTTTCCA NCCTGCNCRA AACTGTTCTT TGGCTCCCG 780

CTGCCCTGA AGGTGCNCCA ATTGGTGGCT NCT 813

25 (2) INFORMATION FOR SEQ ID NO: 51:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 819 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown

30 (ii) MOLECULE TYPE: cDNA

35 (vii) IMMEDIATE SOURCE:
 (B) CLONE: U-D61

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

GGCACTCAGG AACTCCAACA TCCAAGTCCT GTTGGATGTC CCCGCGATCGG ACCTGCGAGTC 60

45 ACTGGCCCTCC AATCCTTCGG CGGCCGGCGA CTGGATCCGG AGGAACGTCG TCGCTACTG 120

GCCCCAGCGTC TCCCTTCGGAT ACATAGCTGT CGGAAACGAG CTGATCCCCG GATCGGATCT 180

50 GCGCCACTAC ATCCCTCCCG CCATGCCAA CATCTACAAAT GCTTTGCTCT CGGCTGGCCT 240

GCAAAACCCAG ATCAAGGTCT CGACCGCGGT CGCACACGGGC GTCCCTGGCA CGTCTAACCC 300

TCCCTCCGCC CGCGCCCTCT CCTCCGCCGC CGCGCGTAC CTGAGCCCCA TCGTGCAGTT 360

55 CTTGGCGAGT AACGGAGCGC CGCTCTGGT CAATGTGTAC CCTTATTTTA GCTACACCGG 420

CAACCCGGGA CAGATCTCGC TCCCTACGC CCTGTTCACG GCCTCCGGCG TCGTCGTGCA 480

60 GGATGGCGA TTCANATATC AGAACCTGTT CGACGCCATC GTCGACCGGG TCTTCGGCG 540

GCCTGGAAAA AATGGGAAAG CGCAACGTTG CGGTGGTGT GTCCGAAACG GGGTGGCGT 600

CCGGGGCGG AAGAACCCNA AACNAACACC ANAACNCNCG CGGGAANTTT CAACCANAAC 660

65 TTGATCAGGC ATGTTNGGG GRAGAACCCC AAGGAAAACC AGGGAAGGAA ATCAAGGCTT 720

CNTNTTCCAA AANTTTCCAC CAAAACCCNA AAGGTGGANG GATCCAACAA AACTTTGGCC 780

70 TGTTTATCC CAANNAACAN CCCNTCTTAC CNAATAACT 819

(2) INFORMATION FOR SEQ ID NO: 52: